

**Initial Statement of Reasons  
Disinfectant Residuals, Disinfection Byproducts, and  
Disinfection Byproduct Precursors  
Title 22, California Code of Regulations**

All suppliers of domestic water to the public are subject to regulations adopted by the U.S. Environmental Protection Agency (EPA) under the Safe Drinking Water Act (42 U.S.C. 300f et seq.) as well as by the California Department of Health Services under the California Safe Drinking Water Act (Sections 116270 - 116751, Health and Safety Code [H&S Code]). California has been granted “primacy” for the enforcement of the federal Act. In order to receive and maintain primacy, states must promulgate regulations that are no less stringent than the federal regulations.

On December 16, 1998, with revisions on January 16, 2001, federal regulations were promulgated that required water systems to comply with a combination of new maximum contaminant levels (MCLs), maximum residual disinfectant levels (MRDLs) and a treatment technique to improve control of disinfectants and disinfection byproducts (Federal Register, Vol. 63, No. 241 and Federal Register, Vol. 66, No. 10). These requirements, known as the Disinfectants/Disinfection Byproducts Rule (DBPR), apply to all utilities defined as community or nontransient noncommunity systems that treat their water with a chemical disinfectant.

Pursuant to federal primacy requirements and section 116375 of the H&S code, the Department proposes the following changes to title 22:

**Chapter 15, Article 1**

- To amend section 64400 by revising the definition of acute risk.
- To amend sections 64400.30, 64400.40, 64400.42, 64400.44, 64400.45, and 64400.47 by changing the section numbers to 64400.25, 64400.28, 64400.30, 64400.32, 64400.34, and 64400.42 respectively.
- To add necessary definitions by adopting sections 64400.38, 64400.40, 64400.45, 64400.47, 64400.67, 64401.65, 64401.82, and 64401.92.

**Chapter 15, Article 4.5**

- To amend section 64439 (Trihalomethanes requirements) by updating the Federal Register citations.

**Chapter 15, Article 19**

- To amend section 64464.3 (Public notification-water quality failure), by adding provisions for disinfectants and disinfection byproducts and deleting provisions for nitrate (redundant as nitrate MCL is included in Section 64431 for inorganic chemicals) and turbidity (obsolete as turbidity is now regulated under Chapter 17, Surface Water Treatment Rule).

- To amend section 64464.6 (Public notification-procedural failure), by adding provisions for disinfectants, disinfection byproducts, and disinfection byproduct precursors.
- To amend section 64465 (Notification of an acute risk), by adding provisions for disinfectants.
- To adopt section 64468.5 (Health effects language for disinfectants and disinfection byproducts).

### **Chapter 15.5**

- To amend title 22 by adopting chapter 15.5 and the following sections detailing disinfectant residuals, disinfection byproducts, and disinfection byproduct precursor requirements:

Section 64530.	Applicability of this chapter
Section 64531	Definitions governing terms used in this chapter
Section 64533	Maximum contaminant levels for disinfection byproducts
Section 64533.5	Maximum residual disinfectant levels
Section 64534	General monitoring requirements
Section 64534.2	Disinfection byproducts monitoring
Section 64534.4	Disinfectant residuals monitoring
Section 64534.6	Disinfection byproduct precursors (DBPP) monitoring
Section 64534.8	Monitoring plans
Section 64535	General requirements for determining compliance
Section 64535.2	Determining disinfection byproducts compliance
Section 64535.4	Determining disinfectant residuals compliance
Section 64536	Alternatives to the enhanced coagulation and enhanced softening requirements
Section 64536.2	Enhanced coagulation and enhanced softening performance
Section 64536.4	Disinfection byproduct precursor (DBPP) compliance calculations
Section 64536.6	Disinfection byproduct precursor (DBPP) public notification requirements
Section 64537	General reporting requirements
Section 64537.2	Disinfection byproducts reporting
Section 64537.4	Disinfectants reporting
Section 64537.6	Disinfection byproduct precursors and enhanced coagulation or enhanced softening reporting

The net effect is that:

- Community water systems and nontransient, noncommunity water systems that provide or treat water with a chemical disinfectant in any part of the treatment process would be required to comply with the MCLs for disinfectant byproducts, the MRDLs for disinfectants and the treatment technique requirements for disinfection byproduct precursors.

- Transient noncommunity systems using chlorine dioxide would be required to comply with the requirements for chlorine dioxide.

None of the proposed amendments would affect California's primacy status, because the net effect of these amendments is that the state's regulation would be at least as stringent as the federal regulation.

The following table describes and explains the proposed amendments. All references to 1998 FR are to parts 141 and 142 of Title 40, Code of Federal Regulations, as published in the December 16, 1998, Federal Register (Vol. 63, No. 241). All references to 2001 FR are to parts 141 and 142 of Title 40, Code of Federal Regulations, as published in the January 16, 2001, Federal Register (Vol. 66, No. 10).

State Citation	Federal Citation	Differences
64439	1998 & 2001 FR; 141.12, 141.30	No substantial difference
64400	1998 FR; 141.32(a)(1)(iii)	The purpose of this existing definition is to provide clarification for the subsequent requirements. The definition would be revised to include "disinfectant residual." As with many beneficial water treatment chemicals, an excessive residual could cause adverse health effects, though the chemical would not be referred to as a contaminant. The incorporation of disinfectants is necessary as part of the public notification requirements of the 1998 FR, 141.32(a)(1)(iii).
64400.25	None	This section, previously identified as 64400.30, is being renumbered to accommodate the insertion of other definitions in alphabetical order.
64400.28	None	This section, previously identified as 64400.40, is being renumbered to accommodate the insertion of other definitions in alphabetical order.
64400.30	None	This section, previously identified as 64400.42, is being renumbered to accommodate the insertion of other definitions in alphabetical order.
64400.32	None	This section, previously identified as 64400.44, is being renumbered to accommodate the insertion of other definitions in alphabetical order.
64400.34	None	This section, previously identified as 64400.45, is being renumbered to accommodate the insertion of other definitions in alphabetical order.
64400.38	1998 FR; 141.2	No substantial difference
64400.40	1998 FR; 141.2	No substantial difference
64400.42	None	This section, previously identified as 64400.47, is being renumbered to accommodate the insertion of other definitions in alphabetical order.
64400.45	1998 FR; 141.2	No substantial difference
64400.47	1998 FR; 141.2	No substantial difference
64400.67	1998 FR; 141.2	No substantial difference
64401.65	1998 FR; 141.2	No substantial difference

64401.82	1998 FR; 141.2	No substantial difference
64401.92	None	The purpose of this proposed definition is to provide clarification for the subsequent requirements.
64464.3	1998 FR; 141.32(a)	The purpose of this existing section is to establish requirements for public notification in the event of a water quality failure. Paragraph (a)(1) would be revised by adding provisions for disinfection byproducts and disinfectants in conformance with 1998 FR, 141.32(a).
64464.6	1998 FR; 141.32(a)	The purpose of this existing section is to establish requirements for public notification in the event of a procedural failure. Paragraph (a)(1) would be revised by adding provisions for disinfection byproducts, disinfectants, and disinfection byproduct precursors, in conformance with 1998 FR, 141.32(a).
64465	1998 FR; 141.32(a)(1)(iii)	The purpose of this existing section is to establish requirements for public notification in the event of an acute risk. This section would be revised by adding provisions for residual disinfectants in conformance with 1998 FR, 141.32(a)(1)(iii).
64468.5	1998 FR; 141.32(e)(76)-(81)	Minor change to language under subsection (c) for clarity. No difference in intent.
64530(a)	1998 & 2001 FR; 141.64(b)(1), & 141.65(b)(1)	The federal term “subpart H systems” is the equivalent of the DHS term “systems using approved surface water.”
64530(b)	1998 & 2001 FR; 141.65(b)(2)	No substantial difference
64531	None	The purpose of this section is to reference existing and proposed definitions that govern the terms used in this proposed chapter.
64533(a)	1998 FR; 141.64(a)	Language referring to monitoring and calculation methods added for clarity. Also added detection limits for purposes of reporting (DLRs) in order to standardize reporting levels. It is necessary to standardize reporting levels to ensure the quality of the monitoring data. The DLRs specified in Table 64533-A were taken from federal guidance documents (DBP/ICR Analytical Methods Manual, April 1996, USEPA document # 814-B-96-002, page 40) and federal regulation (40 CFR, Part 141.24(f)(17)(i)(E), 7/1/2000 edition).
64533(b)	1998 & 2001 FR; 141.64(b)(2)	Added “or other technology to limit disinfection byproducts” in addition to granular activated carbon (GAC) and membranes. Section 1412(b)(10) of the 1996 Safe Drinking Water Act (Title XIV of the Public Health Service Act, 42 United States Code, Section 300g-1(b)(10), as revised August 6, 1996) allows an additional two years for compliance, not to extend beyond December 31, 2003, if the State determines additional time is necessary for capital improvements.
64533(c)	1998 FR; 141.64(c)	No substantial difference
64533.5(a)	1998 FR; 141.65(a)	Language referring to monitoring and calculation methods added for clarity.
64533.5(b)	1998 FR; 141.130(d)	Added language requiring that the Department be notified if residual disinfectant levels are increased to address specific microbiological contamination problems. Since such situations may cause consumers to complain about the taste or odor of their water and it may be perceived as a health issue, it is necessary that the Department be notified.
64533.5(c)	1998 FR; 141.65(c)	No substantial difference
64534(a)	1998 FR; 141.131(a)(1) & (a)(2)	The Department’s proposed regulations incorporate the EPA methods by reference.
64534(b)	1998 FR; 141.131(c)(3) & (d)	The federal regulations specify that only “a party approved by

		the EPA or State” may complete these analyses. For clarity, the Department’s proposed regulation specifies who may complete these analyses.
64534(c)	1998 FR; 141.132(a)(1)	Added language to clarify that circumstances such as those described in section 64533.5(b) are not “normal operating conditions” and therefore should not be included in compliance monitoring.
64534(d)	1998 & 2001 FR; 141.132(a)(2)	For clarity, the proposed language specifies the information that will need to be submitted to the Department in order for the Department to make a determination.
64534(e)	1998 FR; 141.132(a)(5)	No substantial difference
64534.2(a)	1998 & 2001 FR; 141.132(b)(1)(i)	No substantial difference
64534.2(a)(1)	1998 FR; 141.132(b)(1)(ii)	The proposed regulation requires that the system apply to the Department to reduce monitoring. The proposed regulation also specifies what information must be submitted in such an application in order for the Department to make a determination. Applications to reduce monitoring are necessary to ensure that all criteria are met before a system reduces monitoring.
64534.2(a)(2)	1998 & 2001 FR; 141.132(b)(1)(iii)	No substantial difference
64534.2(a)(3)	2001 FR; 141.132(b)(1)(iv)	No substantial difference
64534.2(b)	1998 FR; 141.132(b)(2)	No substantial difference
64534.2(b)(1)	1998 FR; 141.132(b)(2)(i)(A) & 141.132(b)(2)(ii)	No substantial difference
64534.2(b)(2)	1998 FR; 141.132(b)(2)(i)(B)	No substantial difference
64534.2(b)(3)	1998 FR; 141.132(b)(2)(iii)(B)	The proposed regulation requires that the system apply to the Department to reduce monitoring. The proposed regulation also specifies what information must be submitted in such an application in order for the Department to make a determination. Applications to reduce monitoring are necessary to ensure that all criteria are met before a system reduces monitoring.
64534.2(c)	1998 FR; 141.132(b)(3)(i)	No substantial difference
64534.2(c)(1)	1998 FR; 141.132(b)(3)(i)	No substantial difference
64534.2(c)(2)	1998 FR; 141.132(b)(3)(ii) & 141.132(e)	No substantial difference
64534.4(a)	1998 & 2001 FR; 141.132(c)(1)(i)	No substantial difference
64534.4(b)	1998 FR; 141.132(c)(2)(i)	No substantial difference
64534.4(b)(1)	1998 FR; 141.132(c)(2)(ii)	No substantial difference
64534.4(b)(2)	1998 FR; 141.132(c)(2)(ii)	No substantial difference
64534.6(a)	1998 FR; 141.132(d)(1)	No substantial difference
64534.6(b)	1998 FR; 141.132(d)(2)	No substantial difference
64534.8	1998 FR; 141.132(f)	The proposed language requires all systems to submit plans to the Department for approval, whereas the federal language only requires this of systems serving more than 3300 persons. The Department believes it is necessary to review and approve all plans before monitoring begins under such plans in order to verify that the proposed monitoring locations and frequencies are appropriate.
64534.8(a)	1998 FR; 141.132(f)(1)	The proposed language requires that the sampling plan address seasonal variations if applicable. For some systems the source water and/or treatment facilities utilized may change dependent on the season. In such cases the sampling plan must incorporate

		such changes.
64534.8(b)	1998 FR; 141.132(f)(2)	No substantial difference
64535(a)	1998 FR; 141.133(a)(2)	No substantial difference
64535(b)	1998 FR; 141.32(a)(1)(iii)	No substantial difference
64535.2(a)	1998 FR; 141.133(a)(3)	The language has been modified to be more consistent with the Department's "shall not exceed" format as opposed to the USEPA's "out of compliance" format. The intent and standard are identical.
64535.2(b)(1)	1998 FR; 141.133(b)(1)(i)	No substantial difference
64535.2(b)(2)	1998 & 2001 FR; 141.133(b)(1)(ii) & (iii)	No substantial difference
64535.2(b)(3)	1998 FR; 141.133(b)(1)(i)	No substantial difference
64535.2(b)(4)	2001 FR; 141.133(b)(1)(iv)	No substantial difference
64535.2(c)	1998 FR; 141.133(b)(2)	No substantial difference
64535.2(d)	1998 FR; 141.133(b)(3)	No substantial difference
64535.4(a)	1998 FR; 141.133(a)(3)	The language has been modified to be more consistent with the Department's "shall not exceed" format as opposed to the USEPA's "out of compliance" format. The intent and standard are identical.
64535.4(b)(1)	1998 & 2001 FR; 141.133(c)(1)(i)	No substantial difference
64535.4(b)(2)	1998 FR; 141.133(c)(1)(ii)	No substantial difference
64535.4(c)	1998 FR; 141.133(c)(2)(i)	No substantial difference
64535.4(c)(1)	1998 & 2001 FR; 141.133(c)(2)(i)	No substantial difference
64535.4(c)(2)	1998 & 2001 FR; 141.133(c)(2)(ii)	No substantial difference
64536(a)	1998 FR; 141.135(a)(2)	No substantial difference
64536(a)(1)	1998 FR; 141.135(a)(2)(i)	No substantial difference
64536(a)(2)	1998 & 2001 FR; 141.135(a)(2)(ii)	No substantial difference
64536(a)(3)	1998 FR; 141.135(a)(2)(iii)	No substantial difference
64536(a)(3)(A)	1998 FR; 141.135(a)(2)(iii)	No substantial difference
64536(a)(3)(B)	1998 & 2001 FR; 141.135(a)(2)(iii)	Language has been modified for clarity.
64536(a)(4)	1998 FR; 141.135(a)(2)(iv)	No substantial difference
64536(a)(5)	1998 FR; 141.135(a)(2)(v)	No substantial difference
64536(a)(6)	1998 FR; 141.135(a)(2)(vi)	No substantial difference
64536(b)	1998 FR; 141.135(a)(3)	Language has been modified for clarity.
64536(b)(1)	1998 FR; 141.135(a)(3)(i)	No substantial difference
64536(b)(2)	1998 FR; 141.135(a)(3)(ii)	No substantial difference
64536.2(a)	1998 FR; 141.135(a)(1)	No substantial difference
64536.2(b)	1998 & 2001 FR; 141.135(b)(2)	No substantial difference
64536.2(c)	1998 FR; 141.135(b)(3)	No substantial difference
64536.2(d)	1998 & 2001 FR; 141.135(b)(4)	No substantial difference
64536.2(d)(1)	1998 & 2001 FR; 141.135(b)(4)(i)	No substantial difference
64536.2(d)(2)	1998 & 2001 FR; 141.135(b)(4)(ii)	No substantial difference
64536.2(d)(3)	1998 & 2001 FR; 141.135(b)(4)(iii)	No substantial difference

64536.2(d)(4)	1998 & 2001 FR; 141.135(b)(4)(v)	No substantial difference
64536.4(a)	1998 & 2001 FR; 141.135(c)(1)	No substantial difference
64536.4(a)(1)	1998 FR; 141.135(c)(1)(i)	No substantial difference
64536.4(a)(2)	1998 FR; 141.135(c)(1)(ii)	No substantial difference
64536.4(a)(3)	1998 FR; 141.135(c)(1)(iii)	No substantial difference
64536.4(a)(4)	1998 FR; 141.135(c)(1)(iv)	No substantial difference
64536.4(a)(5)	1998 FR; 141.135(c)(1)(v)	No substantial difference
64536.4(b)	1998 FR; 141.135(c)(2)	No substantial difference
64536.4(b)(1)	1998 FR; 141.135(c)(2)(i)	No substantial difference
64536.4(b)(2)	1998 FR; 141.135(c)(2)(i)	No substantial difference
64536.4(b)(3)	1998 FR; 141.135(c)(2)(iii)	No substantial difference
64536.4(b)(4)	1998 FR; 141.135(c)(2)(iv)	No substantial difference
64536.4(b)(5)	1998 FR; 141.135(c)(2)(ii)	No substantial difference
64536.4(b)(6)	1998 FR; 141.135(c)(2)(v)	No substantial difference
64536.6	1998 & 2001 FR; 141.133(d) & 1998 FR; 141.135(d)	No substantial difference
64537	1998 FR; 141.134(a)	No substantial difference
64537.2	1998 & 2001 FR; 141.134(b)	No substantial difference
64537.4	1998 & 2001 FR; 141.134(c)	No substantial difference
64537.6	1998 & 2001 FR; 141.134(d)	No substantial difference

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Note that the Department finds that adoption of the subject regulations constitutes action by a regulatory agency, which action is expressly authorized by state statute for protection of the environment and does not involve the relaxation of any standard for protection of the environment; and is therefore categorically exempt from compliance with the California Environmental Quality Act (CEQA) as a Class 8 exemption pursuant to CEQA Guidelines, 14 CCR 15308. The Department further finds that the adoption of the subject regulations does not fall within any exception to categorically exempt projects described in Public Resources Code 21084.